

## PATENT ASSIGNMENT

Electronic Version v1.1

Stylesheet Version v1.1

| SUBMISSION TYPE:                                                                                                                                                                                                                                                                                            | NEW ASSIGNMENT                          |               |                                         |                     |                    |                                    |            |                |            |              |            |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------|---------------|-----------------------------------------|---------------------|--------------------|------------------------------------|------------|----------------|------------|--------------|------------|
| NATURE OF CONVEYANCE:                                                                                                                                                                                                                                                                                       | MERGER                                  |               |                                         |                     |                    |                                    |            |                |            |              |            |
| EFFECTIVE DATE:                                                                                                                                                                                                                                                                                             | 04/20/2006                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| CONVEYING PARTY DATA                                                                                                                                                                                                                                                                                        |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| <table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>Chiron Corporation</td><td>04/19/2007</td></tr><tr><td>Novartis Biotech Partnership, Inc.</td><td>04/19/2007</td></tr></tbody></table>                                                                         |                                         | Name          | Execution Date                          | Chiron Corporation  | 04/19/2007         | Novartis Biotech Partnership, Inc. | 04/19/2007 |                |            |              |            |
| Name                                                                                                                                                                                                                                                                                                        | Execution Date                          |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Chiron Corporation                                                                                                                                                                                                                                                                                          | 04/19/2007                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Novartis Biotech Partnership, Inc.                                                                                                                                                                                                                                                                          | 04/19/2007                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| RECEIVING PARTY DATA                                                                                                                                                                                                                                                                                        |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| <table border="1"><tr><td>Name:</td><td>Novartis Vaccines and Diagnostics, Inc.</td></tr><tr><td>Street Address:</td><td>4560 Horton Street</td></tr><tr><td>City:</td><td>Emeryville</td></tr><tr><td>State/Country:</td><td>CALIFORNIA</td></tr><tr><td>Postal Code:</td><td>94808-2916</td></tr></table> |                                         | Name:         | Novartis Vaccines and Diagnostics, Inc. | Street Address:     | 4560 Horton Street | City:                              | Emeryville | State/Country: | CALIFORNIA | Postal Code: | 94808-2916 |
| Name:                                                                                                                                                                                                                                                                                                       | Novartis Vaccines and Diagnostics, Inc. |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Street Address:                                                                                                                                                                                                                                                                                             | 4560 Horton Street                      |               |                                         |                     |                    |                                    |            |                |            |              |            |
| City:                                                                                                                                                                                                                                                                                                       | Emeryville                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| State/Country:                                                                                                                                                                                                                                                                                              | CALIFORNIA                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Postal Code:                                                                                                                                                                                                                                                                                                | 94808-2916                              |               |                                         |                     |                    |                                    |            |                |            |              |            |
| PROPERTY NUMBERS Total: 3                                                                                                                                                                                                                                                                                   |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| <table border="1"><thead><tr><th>Property Type</th><th>Number</th></tr></thead><tbody><tr><td>Application Number:</td><td>60237556</td></tr><tr><td>PCT Number:</td><td>US0130961</td></tr><tr><td>PCT Number:</td><td>US0130963</td></tr></tbody></table>                                                  |                                         | Property Type | Number                                  | Application Number: | 60237556           | PCT Number:                        | US0130961  | PCT Number:    | US0130963  |              |            |
| Property Type                                                                                                                                                                                                                                                                                               | Number                                  |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Application Number:                                                                                                                                                                                                                                                                                         | 60237556                                |               |                                         |                     |                    |                                    |            |                |            |              |            |
| PCT Number:                                                                                                                                                                                                                                                                                                 | US0130961                               |               |                                         |                     |                    |                                    |            |                |            |              |            |
| PCT Number:                                                                                                                                                                                                                                                                                                 | US0130963                               |               |                                         |                     |                    |                                    |            |                |            |              |            |
| CORRESPONDENCE DATA                                                                                                                                                                                                                                                                                         |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Fax Number: (919)862-2260<br><i>Correspondence will be sent via US Mail when the fax attempt is unsuccessful.</i>                                                                                                                                                                                           |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Phone: 919-862-2229                                                                                                                                                                                                                                                                                         |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Email: tracey.wright@alston.com                                                                                                                                                                                                                                                                             |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Correspondent Name: Leslie T. Henry                                                                                                                                                                                                                                                                         |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Address Line 1: 3201 Beechleaf Court, Suite 600                                                                                                                                                                                                                                                             |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| Address Line 4: Raleigh, NORTH CAROLINA 27604-1062                                                                                                                                                                                                                                                          |                                         |               |                                         |                     |                    |                                    |            |                |            |              |            |
| ATTORNEY DOCKET NUMBER:                                                                                                                                                                                                                                                                                     | 035784/239627                           |               |                                         |                     |                    |                                    |            |                |            |              |            |
| NAME OF SUBMITTER:                                                                                                                                                                                                                                                                                          | leslie t. henry                         |               |                                         |                     |                    |                                    |            |                |            |              |            |

CH \$120.00 60237556

PATENT

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REEL: 019712 FRAME: 0940

**Total Attachments: 8**

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# Delaware

PAGE 1

*The First State*

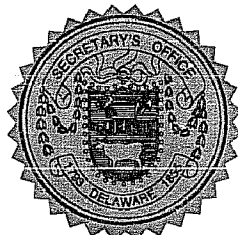
I, HARRIET SMITH WINDSOR, SECRETARY OF STATE OF THE STATE OF DELAWARE, DO HEREBY CERTIFY THE ATTACHED IS A TRUE AND CORRECT COPY OF THE CERTIFICATE OF MERGER, WHICH MERGES:

"NOVARTIS BIOTECH PARTNERSHIP, INC.", A DELAWARE CORPORATION,

WITH AND INTO "CHIRON CORPORATION" UNDER THE NAME OF "NOVARTIS VACCINES AND DIAGNOSTICS, INC.", A CORPORATION ORGANIZED AND EXISTING UNDER THE LAWS OF THE STATE OF DELAWARE, AS RECEIVED AND FILED IN THIS OFFICE THE NINETEENTH DAY OF APRIL, A.D. 2006, AT 12:25 O'CLOCK P.M.

AND I DO HEREBY FURTHER CERTIFY THAT THE EFFECTIVE DATE OF THE AFORESAID CERTIFICATE OF MERGER IS THE TWENTIETH DAY OF APRIL, A.D. 2006, AT 12:01 O'CLOCK A.M.

A FILED COPY OF THIS CERTIFICATE HAS BEEN FORWARDED TO THE NEW CASTLE COUNTY RECORDER OF DEEDS.



2108457 8100M

060363242

*Harriet Smith Windsor*

Harriet Smith Windsor, Secretary of State  
AUTHENTICATION: 4678437

DATE: 04-19-06

PATENT

REEL: 019712 FRAME: 0942

**CERTIFICATE OF MERGER**  
**of**  
**NOVARTIS BIOTECH PARTNERSHIP, INC.**  
**a Delaware corporation,**  
**with and into**  
**CHIRON CORPORATION**  
**a Delaware corporation**

Pursuant to Section 251(c) of the General Corporation Law of the State of Delaware (the "DGCL"), Chiron Corporation, a corporation organized and existing under the laws of the State of Delaware, does hereby certify as follows:

**First:** The name and state of incorporation of each of the constituent corporations of the merger (the "Constituent Corporations") are as follows:

| <u>Name</u>                        | <u>State of Incorporation</u> |
|------------------------------------|-------------------------------|
| NOVARTIS BIOTECH PARTNERSHIP, INC. | Delaware                      |
| CHIRON CORPORATION                 | Delaware                      |

**Second:** The Agreement and Plan of Merger, dated as of October 30, 2005, as amended, by and among Novartis Corporation, a New York corporation, Novartis Biotech Partnership, Inc., a Delaware corporation, Chiron Corporation, a Delaware corporation (the "Surviving Corporation"), and, for purposes of Section 10.14 thereof only, Novartis AG, a Swiss corporation (the "Merger Agreement"), has been approved, adopted, certified, executed and acknowledged by each of the Constituent Corporations in accordance with the requirements of Section 251 of the DGCL.

**Third:** The name of the surviving corporation of the merger is Chiron Corporation, subject to Article Fourth.

**Fourth:** At the effective time, the name of the Surviving Corporation shall be changed to Novartis Vaccines and Diagnostics, Inc. and the certificate of incorporation of the Surviving Corporation shall be amended and restated in the form of "Exhibit A," attached hereto and, as so amended, shall constitute the Amended and Restated Certificate of Incorporation of the Surviving Corporation. Said Certificate of Incorporation as so amended and changed shall continue to be the Certificate of Incorporation of said Surviving Corporation until further amended and changed in accordance with the provisions of the DGCL.

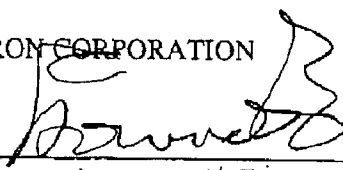
**Fifth:** The executed Merger Agreement is on file at the principal executive offices of the Surviving Corporation at 4560 Horton Street, Emeryville, California 94608.

**Sixth:** A copy of the Merger Agreement will be furnished by the Surviving Corporation, on request and without cost, to any stockholder of any Constituent Corporation.

**Seventh:** This Certificate of Merger shall be effective as of 12:01am on Thursday, April 20, 2006.

IN WITNESS WHEREOF, the undersigned has duly executed this Certificate of Merger as of this 19<sup>th</sup> day April, 2006.

CHIRON CORPORATION

By: 

Name: HOWARD H. PIEN

Title: Chairman of the Board;  
Chief Executive Officer

EXHIBIT A  
**AMENDED AND RESTATED CERTIFICATE OF INCORPORATION**  
**OF**  
**NOVARTIS VACCINES AND DIAGNOSTICS, INC.**

ARTICLE I

The name of the corporation is Novartis Vaccines and Diagnostics, Inc. (the "Corporation").

ARTICLE II

The address of the registered office of the Corporation in the State of Delaware is 1209 Orange Street City of Wilmington, County of New Castle. The name of the registered agent of the Corporation at such address is The Corporation Trust Company.

ARTICLE III

The purpose of the Corporation is to engage in any lawful act or activity for which corporations may be organized under the General Corporation Law of the State of Delaware.

ARTICLE IV

The total number of shares of stock that the Corporation shall have authority to issue is 1,000 shares with a par value of \$0.01 per share. All such shares shall be of one class and shall be designated "Common Stock".

ARTICLE V

For the management of the business and for the conduct of the affairs of the Corporation, and in further definition, limitation and regulation of the powers of the Corporation and of its directors and stockholders, it is further provided that:

Section 1. the number of directors of the Corporation shall be fixed by, or in the manner provided in, the By-laws of the Corporation;

Section 2. in furtherance and not in limitation of the powers conferred by the laws of the State of Delaware, the Board of Directors is expressly authorized and empowered to make, alter, amend or repeal the By-laws of the Corporation in any manner not inconsistent with the laws of the State of Delaware or this Amended and Restated Certificate of Incorporation, subject to the power of the stockholders of the Corporation having voting power to alter, amend or repeal the By-laws of the Corporation;

Section 3. in addition to the powers and authorities herein or by statute expressly conferred upon it, the Board of Directors may exercise all such powers and do all such acts and things as may be exercised or done by the Corporation, subject, nevertheless, to the provisions of the laws of the State of Delaware, this Amended and Restated Certificate of Incorporation and the By-laws of the Corporation;

Section 4. any director or any officer elected or appointed by the stockholders or by the Board of Directors, or any committee thereof, may be removed at any time by the unanimous consent of the stockholders or in such other manner as shall be provided in the By-laws of the Corporation; and

Section 5. unless and except to the extent that the By-laws of the Corporation shall so require, the election of directors of the Corporation need not be by written ballot.

#### ARTICLE VI

No director shall be personally liable to the Corporation or any of its stockholders for monetary damages for breach of fiduciary duty as a director, except for liability (a) for any breach of the director's duty of loyalty to the Corporation or its stockholders, (b) for acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law, (c) pursuant to Section 174 of the Delaware General Corporation Law, or (d) for any transaction from which the director derived an improper personal benefit. The foregoing sentence notwithstanding, if the Delaware General Corporation Law hereafter is amended to authorize further limitations of the liability of a director of a corporation, then a Director of this corporation, in addition to the circumstances in which a Director is not personally liable as set forth in the preceding sentence, shall not be liable to the fullest extent permitted by the Delaware General Corporation Law as so amended. Any repeal or modification of this ARTICLE VI by the stockholders of the Corporation shall not adversely affect any right or protection of a director of the Corporation existing at the time of such repeal or modification with respect to acts or omissions occurring prior to such repeal or modification.

#### ARTICLE VII

No contract or transaction between the Corporation and one or more of its directors or officers (or between the Corporation and any other corporation, partnership, association or other organization in which one or more of its directors or officers are directors or officers, or have a



financial interest) shall be void or voidable solely for such reason, or solely because the director or officer is present at or participates in the meeting of the Board of Directors or committee thereof that authorizes the contract or transaction, or solely because his, her or their votes are counted for such purpose, if:

Section 1. the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the Board of Directors or the committee, and the Board of Directors or committee in good faith authorizes the contract or transaction by the affirmative votes of a majority of the disinterested directors, even though the disinterested directors be less than a quorum;

Section 2. the material facts as to his, her or their relationship or interest and as to the contract or transaction are disclosed or are known to the stockholders entitled to vote thereon, and the contract or transaction is specifically approved in good faith by vote of the stockholders; or

Section 3. the contract or transaction is fair as to the Corporation as of the time it is authorized, approved or ratified by the Board of Directors, a committee thereof or the stockholders.

Common or interested directors shall be counted in determining the presence of a quorum at a meeting of the Board of Directors or of a committee that authorizes any such contract or transaction. No director or officer shall be liable to account to the Corporation for any profit realized by him or her from or through such contract or transaction solely by reason of the fact that he or she or any other corporation, partnership, association or other organization in which he or she is a director or officer, or has a financial interest, was interested in such contract or transaction.

#### ARTICLE VIII

The Corporation shall indemnify any person who was or is a party or is threatened to be made a party to any threatened, pending or completed action, suit or proceeding, whether civil, criminal, administrative or investigative, by reason of the fact that such person, his or her testator or intestate is or was a director, officer, employee or agent of the Corporation or any predecessor of the Corporation, or is or was serving at the request of the Corporation or any predecessor of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise, against expenses (including attorneys' fees), judgments, fines and amounts in connection with such action, suit or proceeding, in accordance with the laws of the State of Delaware, and to the full extent permitted by such laws. Expenses incurred in defending a civil, criminal, administrative or investigative action, suit or proceeding, by reason of the fact that such person, his or her testator or intestate is or was a director, officer, employee or agent of the Corporation or any predecessor of the Corporation, or is or was serving at the request of the Corporation or any predecessor of the Corporation as a director, officer, employee or agent of another corporation, partnership, joint venture, trust or other enterprise shall be paid by the Corporation in advance of the final disposition of such action, suit or proceeding upon receipt of an undertaking by or on behalf of such person to repay such amount if it shall ultimately be determined that such person is not entitled to be indemnified by the

Corporation as authorized by relevant sections of the Delaware General Corporation Law. Such indemnification shall not be deemed exclusive of any other rights to which those seeking indemnification may be entitled under any by-law, agreement, vote of stockholders or disinterested directors or otherwise, including insurance purchased and maintained by the Corporation, both as to action in his or her official capacity and as to action in another capacity while holding such office, and shall continue as to a person who has ceased to be a director, officer, employee or agent and shall inure to the benefit of the heirs, executors and administrators of such a person.

The foregoing provisions of this Article VIII shall be deemed to be a contract between the Corporation and each director who serves in such capacity at any time while this Article VIII is in effect, and any repeal or modification thereof shall not affect any rights or obligations then existing with respect to any state of facts then or theretofore existing or any action, suit or proceeding theretofore or thereafter brought based on whole or in part upon any such state of facts.

#### ARTICLE IX

The Corporation reserves the right at any time and from time to time to amend, alter, change or repeal any provision contained in this Amended and Restated Certificate of Incorporation (including provisions as may hereafter be added or inserted in this Amended and Restated Certificate of Incorporation as authorized by the laws of the State of Delaware) in the manner now or hereafter prescribed by law; and all rights, preferences and privileges of whatsoever nature conferred upon stockholders, directors or any other persons whomsoever by and pursuant to this Amended and Restated Certificate of Incorporation in its current form or as hereafter amended are granted subject to the right reserved in this Article IX.